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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,855	11/13/2001	Amit Ganesh	50277-1769	7991
29989	7590	06/24/2004	EXAMINER	
HICKMAN PALERMO TRUONG & BECKER, LLP			WILSON, YOLANDA L	
1600 WILLOW STREET			ART UNIT	
SAN JOSE, CA 95125			PAPER NUMBER	

2113

DATE MAILED: 06/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/993,855	GANESH ET AL.	
	Examiner	Art Unit	
	Yolanda Wilson	2113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged for the provisional application filed on 05/24/2001.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-43 rejected under 35 U.S.C. 102(e) as being anticipated by Horowitz (USPN 6643797B1). As per claims 1 and 23, Horowitz discloses performing a first operation of said first plurality of operations associated with the atomic transaction; during said step of performing the first operation, detecting a first error that prevents completion of the first plurality of operations; in response to detecting the first error, performing a second plurality of operations for resolving the first error; determining whether a resolution of the first error is obtained in response to performing the second plurality of operations; and if the resolution is obtained, then resuming execution of the first plurality of operations in column 5, lines 45-67; column 6, lines 18-28, 47-50.
4. As per claims 2 and 24, Horowitz discloses determining whether the resolution is obtained within a particular time period; and if the resolution is not obtained within said

Art Unit: 2113

particular time period, then performing a third plurality of operations to remove all changes made by the atomic transaction to said first set of data in column 6, lines 18-47.

5. As per claims 3 and 25, Horowitz discloses determining whether the first error is a member of a predetermined set of errors for which corrective action is available for allowing the atomic transaction to be completed; and said step of performing the second plurality of operations is initiated upon determining that the first error is a member of the predetermined set of errors in column 6, lines 18-50. The system failure would have to be a predetermined error in order to know how to recover from the failure.

6. As per claims 4 and 26, Horowitz discloses detecting that the first error indicates a lack of sufficient resources to complete said atomic transaction; and the step of performing the second plurality of operations includes performing operations directed to obtaining additional resources in column 6, lines 18-20.

7. As per claims 5 and 27, Horowitz discloses performing operations directed to obtaining additional resources includes inviting human intervention to supply the additional resources in column 6, lines 18-26.

8. As per claims 6 and 28, Horowitz discloses the additional resources includes at least one of durable storage space, memory, processors, and communication bandwidth in column 6, lines 18-26.

9. As per claims 7 and 29, Horowitz discloses the additional resources include at least one of: storage space for a database associated with said first set of data; and storage space for storing undo information that indicates how to undo said changes to

said first set of data in column 6, lines 18-47. Aborting transactions includes undoing changes made by a transaction.

10. As per claims 8 and 30, Horowitz discloses requesting a first resource by calling a first instance of a service; and said steps of detecting the first error, performing the second plurality of operations, and determining whether the resolution is obtained are performed by the first instance of the service in column 5, lines 45-55; column 6, lines 18-28, 47-50.

11. As per claims 9 and 31, Horowitz discloses requesting a second resource during said requesting the first resource by calling a second instance of the service in column 5, 56-67.

12. As per claims 10 and 32, Horowitz discloses the second instance performing the steps of detecting the first error; and passing data indicating the first error to the first instance in column 6, lines 18-26.

13. As per claims 11 and 33, Horowitz discloses the second instance performing the step of aborting the request for the second resource in response to detecting the first error in column 6, lines 18-26.

14. As per claims 12 and 34, Horowitz discloses performing an operation that suspends execution of remaining operations of the first plurality of operations in column 6, lines 18-26.

15. As per claims 13 and 35, Horowitz discloses the step of performing the second plurality of operations includes releasing all locks held on all resources as a result of the first operation in column 6, lines 18-26.

Art Unit: 2113

16. As per claims 14 and 36, Horowitz discloses receiving said call at a first instance of a service; in response to said call, performing the steps of adding to a data structure data indicating a first pending request for a first resource; requesting the first resource; determining whether a first error occurs during said requesting the first resource; and if the first error occurs, then determining whether data indicating a second pending request for a second resource precedes the data indicating the first pending request in the data structure, and if the data indicating the second pending request precedes the data indicating the first pending request, then responding to said call with data indicating the first error in column 6, lines 18-26.

17. As per claims 15 and 37, Horowitz discloses determining whether providing the first resource depends upon obtaining a second resource; and if providing the first resource depends upon obtaining the second resource, then calling a second instance of the service to provide the second resource in column 5, lines 46-67.

18. As per claims 16 and 38, Horowitz discloses if providing the first resource does not depend upon obtaining the second resource, then performing the step of requesting the first resource from an operating system in column 5, lines 45-55.

19. As per claims 17 and 39, Horowitz discloses if the first error is not detected, then performing the step of responding to said call with data indicating a reference for the first resource in column 5, lines 45-67.

20. As per claims 18 and 40, Horowitz discloses if no data indicating the second pending request precedes the data indicating the first pending request, then performing the steps of performing a plurality of operations for resolving the first error; determining

Art Unit: 2113

whether a resolution of the first error is obtained in response to performing the plurality of operations; and if the resolution is obtained, then responding to said call with data indicating a reference for the first resource in column 5, lines 45-67; column 6, lines 18-28, 47-50.

21. As per claims 19 and 41, Horowitz discloses if the resolution is not obtained then performing the step of responding to said call with data indicating the first error in column 6, lines 18-47.

22. As per claims 20 and 42, Horowitz discloses removing the data indicating the first pending request from the data structure before returning control to a routine that made the call to the first instance of the service in column 6, lines 18-47.

23. As per claims 21 and 43, Horowitz discloses de-allocating the data structure in response to determining that the data structure does not include at least one pending request in column 6, lines 45-47.

24. As per claim 22, Horowitz discloses performing a first operation of said first plurality of operations associated with the atomic transaction; during said step of performing the first operation, detecting a first error that prevents completion of the first plurality of operations; determining whether the first error is a member of a predetermined set of errors for which corrective action is available for allowing the atomic transaction to be completed; and upon determining that the first error is a member of the predetermined set of errors, performing a second plurality of operations for resolving the first error, including releasing all locks held on all resources as a result of the first operation, and performing an operation that suspends execution of remaining

Art Unit: 2113

operations of the first plurality of operations; determining whether a resolution of the first error is obtained within a particular time period in response to performing the second plurality of operations; if the resolution is obtained, then resuming execution of the first plurality of operations; and if the resolution is not obtained within said particular time period, then performing a third plurality of operations to remove all changes made by the atomic transaction to said first set of data in column 5, lines 45-67; in column 6, lines 18-50. The system failure would have to be a predetermined error in order to know how to recover from the failure. The releasing all locks on all resources is inherent when restarting a computer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yolanda Wilson whose telephone number is (703) 305-3298. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2113

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SCOTT BADERMAN
PRIMARY EXAMINER